

ITCS241: Assembly Language Programming Bits & Control

Quiz #6

- 1) If `bx[7]==1` then inverse ONLY the even-numbered bits in flags register
else calculate `ax = aL * 30` (MUL and IMUL not allowed).

```
5.5
    bt     bx, 7
    jc     done
    mov    al, 0
    mov    dx, ax
    shl    ax, 5
    shl    dx, 1
    sub    ax, dx
    jmp    next
done: xor    ax, 5555H
```

```
next:
    .
```

- 2) Store in BX register the count of lower-case letters in a given string `[ST1]` length of 120 bytes.

```
3
    mov    bx, 0
    mov    ecx, lengthof ST1
    mov    esi, 0
LO:  cmp    ST1[esi], 'a'
    jle    next
    inc    bx
    inc    esi
next: loop    LO
```